UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,053	12/17/2001	Wolfgang Neuberger	BJA245A	1985

7590 06/25/2003

BOLESH J. SKUTNIK PhD, JD
515 Shaker Road
East Longmeadow, MA 01028

EXAMINER
STRECKER, GERARD R

ART UNIT	PAPER NUMBER
2862	

DATE MAILED: 06/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/022,053	Neuberger
Examiner	**Art Unit**
Gerard Strecker	2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above, claim(s) 13-15 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-12 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on Dec 17, 2001 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-12, drawn to an in-line production method and apparatus for manufacturing a partially diffusing optical fiber, classified in class 65, subclass 385.

II. Claims 13 and 14, drawn to a partially diffusing optical fiber, classified in class 385, subclass 123.

III. Claim 15, drawn to a sensor including a light detector and partially diffusing fiber, classified in class 250, subclass 227.14.

The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the fiber could be made by a process (or apparatus) which treats the fiber subsequent to its in-line production.

Inventions I and II and invention III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the the sensor of the invention of Group III performs a different function (i.e. providing information in response to light detection) than the manufacturing process, apparatus

and product, of Groups I and II, and the inventions of Groups I and II are not useable to detect light for providing environmental information.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Bolesh Skutnik on 6/05/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because of the following informalities: In the description of Fig. 3, beginning at page 12, line 23, there is no mention of the numbers 302 and 306 shown in Fig. 3.

Appropriate correction is required.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means to draw the preform into a fiber, the means to control draw speed and the means to control fiber enhancement patterns, of

claim 12, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims 8-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.In claim 8 it is not clear how the catalogue of recited elements structurally cooperate with each other and the drawn fiber to perform the functions recited.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernasson et al (5,737,472, cited in applicant's IDS), hereinafter Bernasson, in view of Berkey et al (6,044,191, cited in applicant's IDS), hereinafter Berkey, and Kouichi et al (4,587,065), hereinafter Kouichi.

Bernasson discloses (Figs. 1 and 4-6) an optical fiber 1 and method and apparatus for treating the fiber. The fiber is treated by degrading (diffusing) it at sites along the length thereof (see col. 2, lines 32-40). The degradation sites provide locations at which light which is passed along the fiber may emerge. As shown in Figs. 4-6, a prior manufactured fiber is run at a controlled speed past an abrasion means (22, 32, 42) which produces the degradation or diffusion site on the fiber. Bernasson's treatment occurs after manufacture of the fiber and not during in-line production thereof.

Berkey discloses (Fig. 9) a method and apparatus for in-line manufacturing a fiber 79 including means (furnace 78) for heating a preform 77 from which a molten perform is drawn to form an untreated fiber. The fiber is treated by ultraviolet light 76 while said fiber is still continuous with said molten zone to periodically induce variations in the refractive index of the fiber along its length (col. 11, lines 22-43) and then coated by coating apparatus 80.

Kouichi discloses (Fig. 1) an in-line method and apparatus for producing an optical fiber in which an untreated optical fiber 3b drawn from a heating molder (4, 4a) is passed through a diffusion treatment unit (7) and a heat treatment unit 20. The treatment units include pipes (chamber 11, tube 21) through which the fiber passes.

It would have been obvious to one skilled in the art, at the time of the invention, to produce the partially diffused optical fiber of Bernasson by treating the molten preform forming the fiber during the process of manufacture, rather than subsequent thereto, in accordance with the procedures taught by Berkey and Kouichi. Treating Bernasson's fibers during in-line production thereof would eliminate the need for a separate and independent treatment facility and process, thus saving time and cost of manufacture. The inclusion of a protective tube and computer control would be implicit.

Onishi et al and Berkey et al (6,539,154) are made of record to show methods of making optical fiber.

Any inquiry concerning this communication should be directed to G. R. Strecker at telephone number 305-4937.

Strecker/ek

06/19/03

Gerard R. Strecker

GERARD R. STRECKER
PRIMARY EXAMINER